

GMC MOTORHOMES INTERNATIONAL

DIESEL POWER CONVERSION

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Discussion of repowering a 1973 GMC Painted Desert with a 6.5l Turbo Diesel



1973 GMC Painted Desert Diesel

How and why



Why?

In 2003 when I brought
the GMC to Europe

Gas prices in Europe were about E 5.16 (\$5.57)pg

Diesel was about E 4.04 (\$4.36)pg

GMC mileage on gas 8-10 mpg

GMC mileage on diesel 14-15 mpg

The 455 was fit for a serious rebuilt, so why not buy
a rebuilt 6.5 diesel?

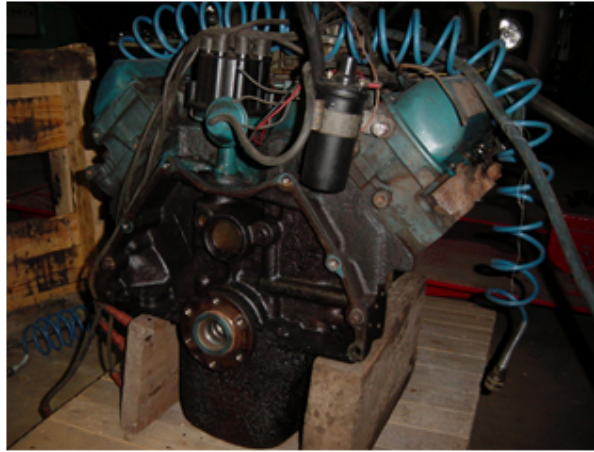
**And besides,
I like diesel.....**

**No sparkplugs,
no distributor,
no highly inflammable fuel.....**

**First step,
separating coach from frame**



**Second step,
separating engine from frame**



Third,
having the
frame hot
dip
galvanized
and putting
it back
together



**Things to do to fit the 6.5 into the engine bay:
Reshaping the oil pan, getting a new Tilton starter and finding a 6.2 low profile intake manifold and a transmission to engine adaptor plate.**

The engine came, at my request, with a DB 2 mechanical injection pump.

This was done to avoid failure prone sensors and computer.

Any diesel mechanic will be able to fix this, as it is a very common pump.

**test fitting engine and tranny in the
frame to build engine support**



Engine support and oil pan



The first plan was to use 2 Eaton super chargers for boost

they were driven by a separate multi belt



New, custom made, 3" exhaust system with 1 muffler in the rear underneath the generator.



Testing the engine for the first time.



Of course I forgot that the multi belt drives the fan the other way, so the fan ate the belt

**New fan
21" composite Duramax**



Home made parts for
remote oil filter

Located in the driver side
Wheel well



Plenum for the 2 superchargers



Time to put the whole thing back together



Frame on creepers to roll back under the coach





It fits!



Test driving resulted in the decision to swap the superchargers for a turbo, as the howling noise was just too much



The exhaust manifold for the turbo had to be custom made, to place the turbo in a convenient location .

The exhaust manifold on the drivers side is a right side 6.2 manifold, used upside down.

From here the cross over pipe runs above/behind the transmission chain cover.



Other modifications: Hydroboost brake booster and a small surge tank with automatic air bleeder to avoid air in the injection system



Needed for a conversion to a 6.5 diesel are:

6.5TD longblock with fuel pump, injectors and fuel lines

Fuel filter and heater

Tilton starter

Block to trans adaptor plate (Jeggs)

Low profile intake manifold (GM 6.2 D)

Custom exhaust system with turbo manifold

Right side GM 6.2D exhaust manifold

Turbo of your choice

Custom air cleaner

Remote oil filter

Hydroboost brake booster

Vacuum pump and vacuum tank

6.5 D Chevy van brackets for mounting alternator, steering pump etc.

And of course all the small stuff I forgot!!